I CLAIM AS MY INVENTION:

1. A method for digital subtraction angiography comprising the steps of:

providing a 3D volume dataset, obtained from a computed tomography scan of a body region containing structures without enrichment of the structures with a contrast agent;

from said 3D volume dataset, calculating a first 2D x-ray image of said body region without enrichment of said structures with contrast agent;

generating a second 2D image of said body region with contrast agent enrichment of said structures; and

subtracting said first 2D x-ray image from said second 2D x-ray image.

2. A method as claimed in claim one comprising generating said 3D dataset by conducting said computed tomography scan of said body region with a C-arm CT apparatus.

3. A method as claimed in claim one comprising bringing said second 2D x-ray image into registration with said 3D volume set by digital image processing.